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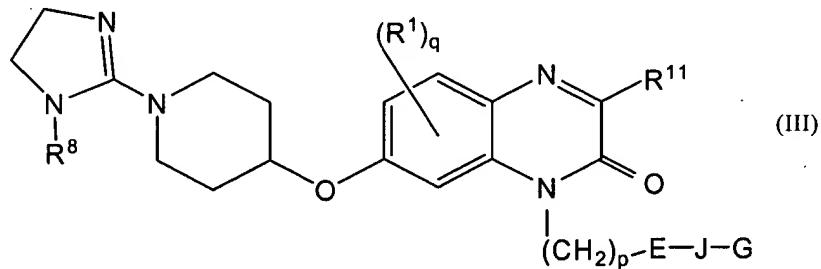
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**IN THE CLAIMS:**

Please cancel claims 1-4 without prejudice and amend claims 13-14 and 16 to read as follows. All claims pending, including those unchanged by the present amendment, are reproduced below for the convenience of the Examiner.

1 1.-4. (Cancelled)

1 5. (Previously amended) A compound of formula III:



2 wherein:

3 R<sup>8</sup> is selected from the group consisting of H, -OH, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, C<sub>6-12</sub>carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and S; and C<sub>1-6</sub>alkylheterocyclic ring system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the group consisting of N, O and S;

4 R<sup>1</sup> is a member selected from the group consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, halogen, polyhaloalkyl, C<sub>0-8</sub>alkyl-C(=O)OH, C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl, -CN, -NO<sub>2</sub>, C<sub>1-8</sub>alkyl-OH, C<sub>0-8</sub>alkyl-SH, -C(=O)NR<sup>2</sup>R<sup>3</sup>, -O-R<sup>2</sup> and -O-C(=O)R<sup>2</sup>, an unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted amino groups are independently substituted by at least one member selected from the group consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, polyhaloalkyl, -SO<sub>2</sub>R<sup>2</sup>, C<sub>0-8</sub>alkyl-C(=O)OH and C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl, where R<sup>2</sup> and R<sup>3</sup> is as described above;

16         $R^2$  is selected from the group consisting of H, -OH,  $C_{1-8}$ alkyl,  $C_{2-8}$ alkenyl,  $C_{2-8}$ alkynyl,  
17         $C_{3-8}$ cycloalkyl,  $C_{6-12}$ carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4  
18        heteroatoms selected from the group consisting of N, O and S; and  $C_{1-6}$ alkylheterocyclic ring  
19        system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the  
20        group consisting of N, O and S;

21         $q$  is 0-3;

22         $R^{11}$  is a member selected from the group consisting of H,  $C_{1-8}$ alkyl,  $C_{2-8}$ alkenyl,  
23         $C_{2-8}$ alkynyl,  $C_{3-8}$ cycloalkyl,  $C_{6-12}$ carbocyclic aryl,  $C_{1-6}$ alkylaryl,  $C_{1-6}$ alkyl- $C_{3-8}$ cycloalkyl, -O- $R^2$ ,  
24        -O-C(=O) $R^2$ , - $C_{1-8}$ alkyl-O- $R^{10}$ , - $C_{1-8}$ alkyl-O-C(=O) $R^{10}$ , - $C_{1-8}$ alkyl-C(=O)OR $^{10}$ ,  
25        - $C_{1-8}$ alkyl-O-C(=O)OR $^{10}$ , - $C_{1-8}$ alkyl-C(=O)NR $^{10}$  $R^{10}$ , - $C_{1-8}$ alkyl-NR $^{10}$  $R^{10}$ ,  
26        - $C_{1-8}$ alkyl-NR $^{10}$ C(=O)R $^{10}$ , -SR $^{10}$ , where  $R^2$  is as described above and  $R^{10}$  is a member selected  
27        from the group consisting of H,  $C_{1-8}$ alkyl,  $C_{2-8}$ alkenyl,  $C_{2-8}$ alkynyl, and wherein when two  $R^{10}$   
28        groups are present they may be taken together to form a saturated or unsaturated ring with the  
29        atom to which they are both attached;

30         $p$  is an integer from 0-2;

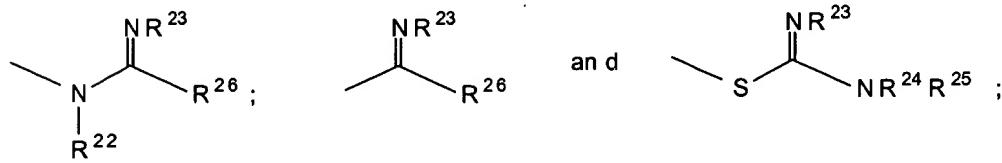
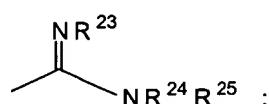
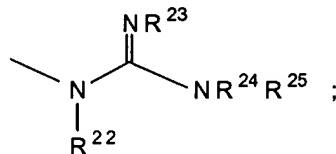
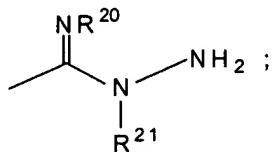
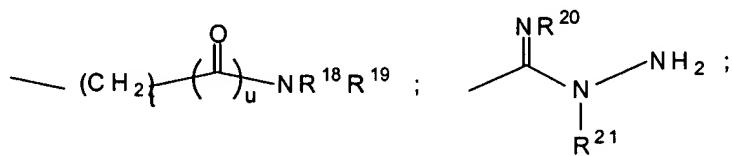
31        E is a member selected from the group consisting of a direct link, -O-, -N(- $R^{11}$ )-, where  
32         $R^{11}$  is as set forth above, phenylene, a bivalent 5 to 12 member heteroaryl group having 1 to 4  
33        heteroatoms selected from the group consisting of N, O and S, and a five to ten membered  
34        non-aromatic bivalent heterocyclic ring system having 1-4 heteroatoms selected from the group  
35        consisting of N, O and S, wherein said heteroaryl and said non-aromatic heterocyclic ring  
36        structure may be independently substituted by from 0 to 5  $R^{14}$  groups;

37        J is a member selected from the group consisting of a direct link, a bivalent  
38         $C_{3-8}$ cycloalkyl group, phenylene, a 5 to 12 member bivalent heteroaryl group having 1 to 4  
39        heteroatoms selected from the group consisting of N, O and S, and a five to ten membered  
40        non-aromatic bivalent heterocyclic ring system having 1-4 heteroatoms selected from the group  
41        consisting of N, O and S wherein said heteroaryl and said non-aromatic heterocyclic ring  
42        structure may be independently substituted by from 0 to 5  $R^{14}$  groups;

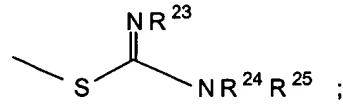
43        each  $R^{14}$  group is a member selected from the group consisting of H,  $C_{1-8}$ alkyl,

44 C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, halogen, polyhaloalkyl, C<sub>0-8</sub>alkyl-C(=O)OH,  
 45 C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl, -CN, -NO<sub>2</sub>, C<sub>1-8</sub>alkyl-OH, C<sub>0-8</sub>alkyl-SH, -O-R<sup>2</sup> and -O-C(=O)R<sup>2</sup>, an  
 46 unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted  
 47 amino groups are independently substituted by at least one member selected from the group  
 48 consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, polyhaloalkyl,  
 49 C<sub>0-8</sub>alkyl-C(=O)OH and C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl;

50 G is a member selected from the group consisting of: H; -CN; -OR<sup>17</sup>;



51 and



52 wherein

53 t is an integer from 0 to 6,

54 u is the integer 0 or 1, and R<sup>17</sup>, R<sup>18</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> are  
 55 independently selected from the group consisting of H, -OH, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl,  
 56 C<sub>3-8</sub>cycloalkyl, C<sub>6-12</sub>carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4  
 57 heteroatoms selected from the group consisting of N, O and S; and C<sub>1-6</sub>alkylheterocyclic ring  
 58 system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the  
 59 group consisting of N, O and S; where R<sup>18</sup> taken with R<sup>19</sup>, R<sup>22</sup> taken with either of R<sup>24</sup> and R<sup>25</sup>,  
 60 and R<sup>24</sup> taken with R<sup>25</sup>, can each independently form a 5 to 6 membered heterocyclic ring having  
 61 from 1 to 4 atoms selected from the group consisting of N, O and S;

62 with the proviso that when G is H, -CN, -OR<sup>17</sup>, either E or J must contain at least one N  
63 atom;

64 or a pharmaceutically acceptable diastereomer, salt, hydrate, and solvate thereof.

1 6. (Original) A compound of claim 5, wherein R<sup>1</sup> and R<sup>8</sup> are independently a  
2 lower alkyl group and R<sup>11</sup> is hydrogen or is a C<sub>1</sub> to C<sub>8</sub> alkyl group.

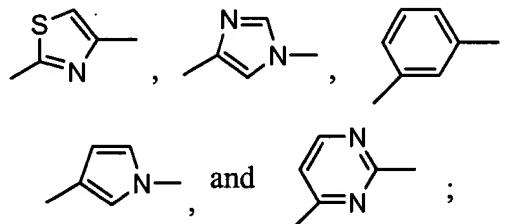
1 7. (Original) A compound of claim 5, wherein q is zero and R<sup>8</sup> is lower alkyl  
2 group.

1 8. (Original) A compound of claim 5, wherein:

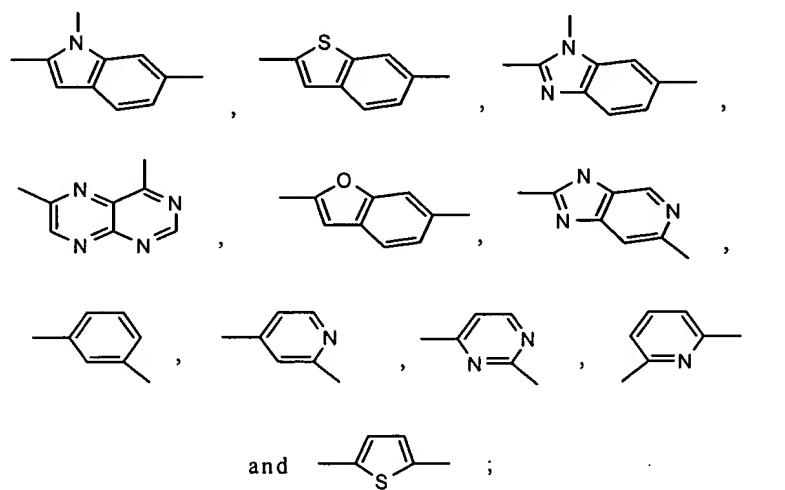
2 R<sup>8</sup> is a methyl group;

3 p is an integer from 1-2;

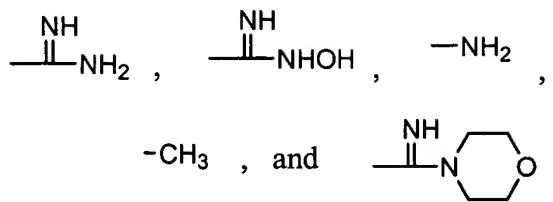
4 E is selected from the group consisting of: a direct link,



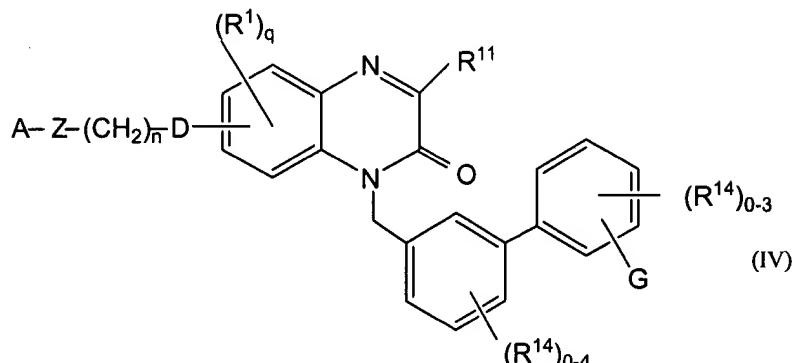
6 J is selected from the group consisting of:



8 and G is selected from the group consisting of:

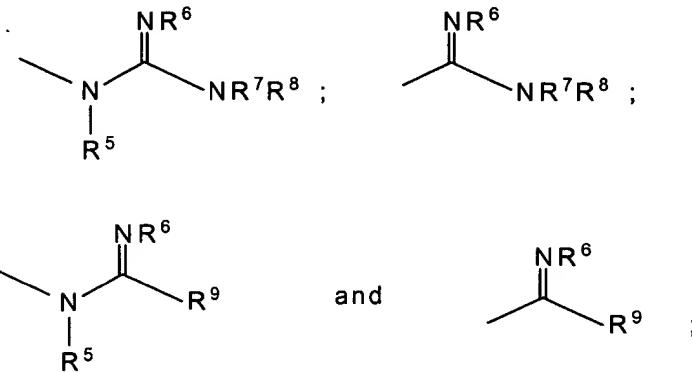


1 9. (Previously amended) A compound of formula IV:



3 wherein:

4 A is a member selected from the group consisting of: R<sup>2</sup>, -NR<sup>3</sup>R<sup>4</sup>, -C(=O)NR<sup>3</sup>R<sup>4</sup>,



5 6 where R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup>, and R<sup>9</sup> are independently selected from the group consisting of  
 7 H, -OH, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, C<sub>6-12</sub>carbocyclic aryl, a five to ten  
 8 membered heterocyclic ring system having 1-4 heteroatoms selected from the group consisting  
 9 of N, O and S; and C<sub>1-6</sub>alkylheterocyclic ring system having in the ring system 5 to 10 atoms  
 10 with 1 to 4 of such atoms being selected from the group consisting of N, O and S; where R<sup>6</sup>  
 11 taken with either of R<sup>7</sup> and R<sup>8</sup>, and/or R<sup>7</sup> taken with R<sup>8</sup>, can each form a 5 to 6 membered

12 heterocyclic ring having from 1 to 4 atoms selected from the group consisting of N, O and S;

13 Z is a member selected from the group consisting of a direct link, C<sub>1-8</sub>alkyl,

14 C<sub>3-8</sub>cycloalkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>1-8</sub>carbocyclic aryl, or a five to ten membered

15 heterocyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and

16 S;

17 n is 0-3;

18 D is a member selected from the group consisting of: -CH<sub>2</sub>-, -O-, -N R<sup>2</sup>, -C(=O)-, -S-,

19 -SO<sub>2</sub>-, -SO<sub>2</sub>-NR<sup>2</sup>, -NR<sup>2</sup>-SO<sub>2</sub>, -OC(=O)-, -C(=O)NR<sup>2</sup>, and -NR<sup>2</sup>-C(=O)-;

20 R<sup>1</sup> and R<sup>14</sup> are independently a member selected from the group consisting of H,

21 C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, halogen, polyhaloalkyl, C<sub>0-8</sub>alkyl-C(=O)OH,

22 C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl, -CN, -NO<sub>2</sub>, C<sub>1-8</sub>alkyl-OH, C<sub>0-8</sub>alkyl-SH, -O-R<sup>2</sup> and -O-C(=O)R<sup>2</sup>, an

23 unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted

24 amino groups are independently substituted by at least one member selected from the group

25 consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, polyhaloalkyl,

26 C<sub>0-8</sub>alkyl-C(=O)OH and C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl;

27 q is 0-3;

28 R<sup>11</sup> is a member selected from the group consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl,

29 C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, C<sub>6-12</sub>carbocyclic aryl, C<sub>1-6</sub>alkylaryl, C<sub>1-6</sub>alkyl-C<sub>3-8</sub>cycloalkyl, -O-R<sup>2</sup>,

30 -O-C(=O)R<sup>2</sup>, -C<sub>1-8</sub>alkyl-O-R<sup>10</sup>, -C<sub>1-8</sub>alkyl-O-C(=O)R<sup>10</sup>, -C<sub>1-8</sub>alkyl-C(=O)OR<sup>10</sup>,

31 -C<sub>1-8</sub>alkyl-O-C(=O)OR<sup>10</sup>, -C<sub>1-8</sub>alkyl-C(=O)NR<sup>10</sup>R<sup>10</sup>, -C<sub>1-8</sub>alkyl-NR<sup>10</sup>R<sup>10</sup>,

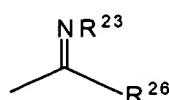
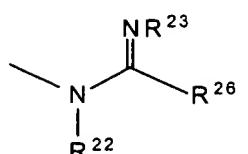
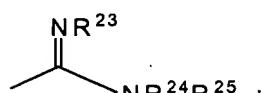
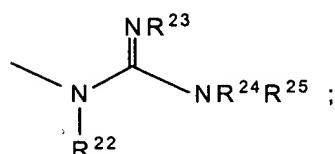
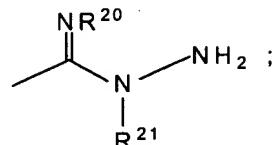
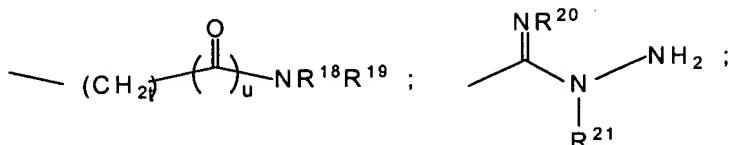
32 -C<sub>1-8</sub>alkyl-NR<sup>10</sup>C(=O)R<sup>10</sup>, -SR<sup>10</sup>, where R<sup>2</sup> is as described above and R<sup>10</sup> is a member selected

33 from the group consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, and wherein when two R<sup>10</sup>

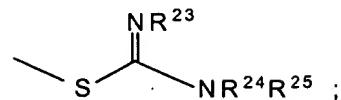
34 groups are present they may be taken together to form a saturated or unsaturated ring with the

35 atom to which they are both attached;

36 G is a member selected from the group consisting of: H; -CN; -OR<sup>17</sup>;



and



37

38 wherein

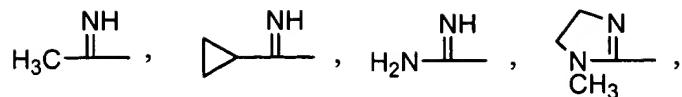
39 t is an integer from 0 to 6,

40 u is the integer 0 or 1, and R<sup>17</sup>, R<sup>18</sup>, R<sup>19</sup>, R<sup>20</sup>, R<sup>21</sup>, R<sup>22</sup>, R<sup>23</sup>, R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> are  
 41 independently selected from the group consisting of H, -OH, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl,  
 42 C<sub>3-8</sub>cycloalkyl, C<sub>6-12</sub>carbocyclic aryl, a five to ten membered heterocyclic ring system having 1-4  
 43 heteroatoms selected from the group consisting of N, O and S; and C<sub>1-6</sub>alkylheterocyclic ring  
 44 system having in the ring system 5 to 10 atoms with 1 to 4 of such atoms being selected from the  
 45 group consisting of N, O and S; where R<sup>18</sup> taken with R<sup>19</sup>, R<sup>22</sup> taken with either of R<sup>24</sup> and R<sup>25</sup>,  
 46 and R<sup>24</sup> taken with R<sup>25</sup>, can each independently form a 5 to 6 membered heterocyclic ring having  
 47 from 1 to 4 atoms selected from the group consisting of N, O and S;

48 with the proviso that when G is H, -CN, -OR<sup>17</sup>, either E or J must contain at least one N  
 49 atom;

50 or a pharmaceutically acceptable diastereomer, salt, hydrate, and solvate thereof.

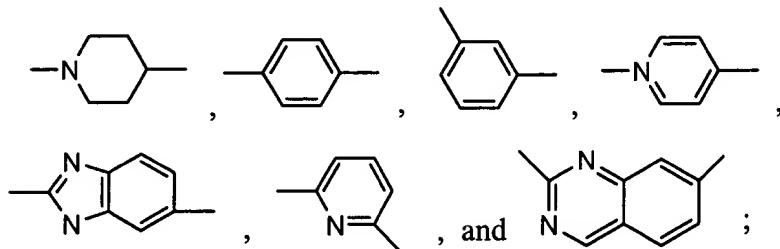
10. (Original) A compound of claim 9, wherein R<sup>1</sup>, R<sup>8</sup>, R<sup>11</sup> and R<sup>14</sup> are  
 2 independently selected from the group consisting of hydrogen, methyl and ethyl;  
 3 A is selected from the group consisting of: -H, -CH<sub>3</sub>, -NH<sub>2</sub>, -C(O)N(CH<sub>3</sub>)<sub>2</sub>,



4

5

Z is selected from the group consisting of:



6

7

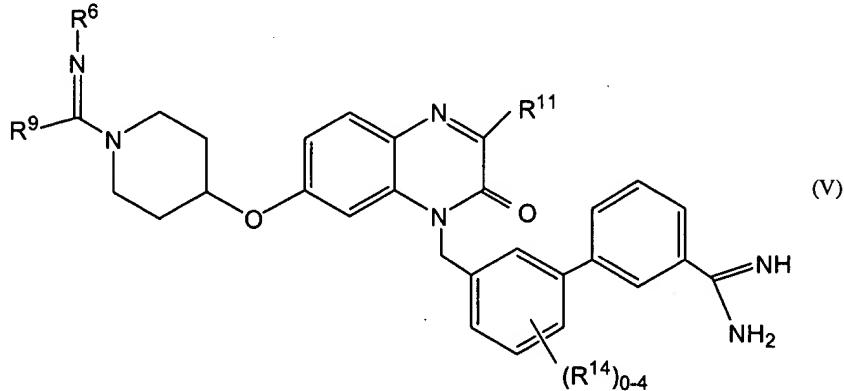
n is an integer from 0-2; and

8

D is selected from the group consisting of: -O-, -N(CH<sub>3</sub>)-, and -CH<sub>2</sub>-.

1

11. (Previously amended) A compound of formula V:



3

1

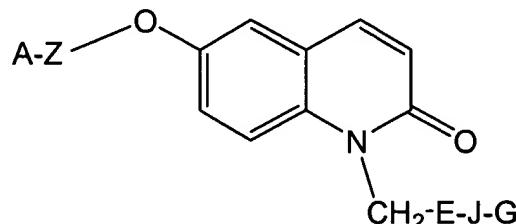
$R^2$ ,  $R^6$ , and  $R^9$  are independently selected from the group consisting of H, -OH,  $C_{1-8}$ alkyl,  $C_6$ - $C_{12}$ alkenyl,  $C_{2-8}$ alkynyl,  $C_{3-8}$ cycloalkyl,  $C_{6-12}$ carbocyclic aryl, a five to ten membered cyclic ring system having 1-4 heteroatoms selected from the group consisting of N, O and S;  $C_{1-6}$ alkylheterocyclic ring system having in the ring system 5 to 10 atoms with 1 to 4 of atoms being selected from the group consisting of N, O and S;

9

10 C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, C<sub>6-12</sub>carbocyclic aryl, C<sub>1-6</sub>alkylaryl,  
 11 C<sub>1-6</sub>alkyl-C<sub>3-8</sub>cycloalkyl, -O-R<sup>2</sup>, -O-C(=O)R<sup>2</sup>, -C<sub>1-8</sub>alkyl-O-R<sup>10</sup>, -C<sub>1-8</sub>alkyl-O-C(=O)R<sup>10</sup>,

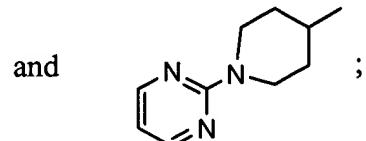
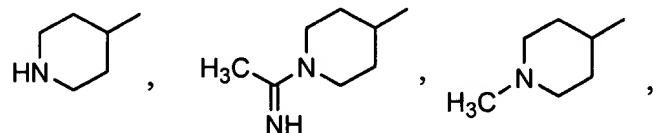
12    -C<sub>1-8</sub>alkyl-C(=O)OR<sup>10</sup>, -C<sub>1-8</sub>alkyl-O-C(=O)OR<sup>10</sup>, -C<sub>1-8</sub>alkyl-C(=O)NR<sup>10</sup>R<sup>10</sup>, -C<sub>1-8</sub>alkyl-NR<sup>10</sup>C(=O)R<sup>10</sup>, -SR<sup>10</sup>, where R<sup>2</sup> is as described above and R<sup>10</sup> is a member  
 13    selected from the group consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, and wherein when  
 14    two R<sup>10</sup> groups are present they may be taken together to form a saturated or unsaturated ring  
 15    with the atom to which they are both attached;  
 16    each R<sup>14</sup> group is a member selected from the group consisting of H, C<sub>1-8</sub>alkyl,  
 17    C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, halogen, polyhaloalkyl, C<sub>0-8</sub>alkyl-C(=O)OH,  
 18    C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl, -CN, -NO<sub>2</sub>, C<sub>1-8</sub>alkyl-OH, C<sub>0-8</sub>alkyl-SH, -O-R<sup>2</sup> and -O-C(=O)R<sup>2</sup>, an  
 19    unsubstituted amino group, a mono- or di-substituted amino group, wherein the substituted  
 20    amino groups are independently substituted by at least one member selected from the group  
 21    consisting of H, C<sub>1-8</sub>alkyl, C<sub>2-8</sub>alkenyl, C<sub>2-8</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, polyhaloalkyl,  
 22    C<sub>0-8</sub>alkyl-C(=O)OH and C<sub>0-8</sub>alkyl-C(=O)O-C<sub>1-8</sub>alkyl;  
 23    or a pharmaceutically acceptable diastereomer, salt, hydrate, and solvate thereof.

1                12. (Original) A compound having the following structure:

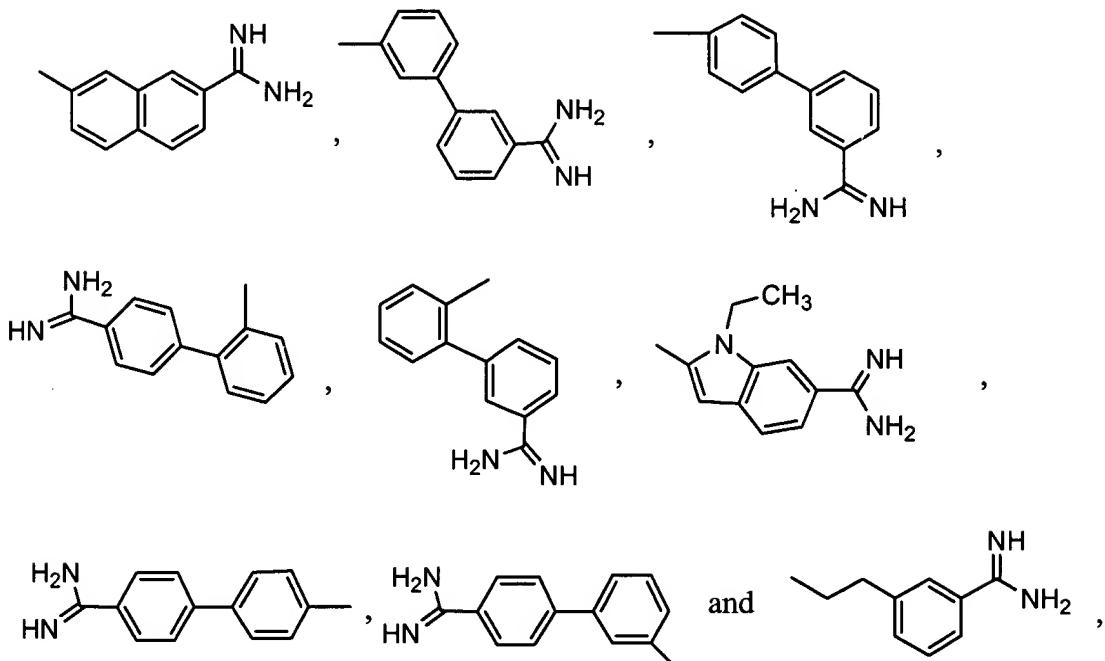


wherein:

A-Z is a member selected from the group consisting of:



6 E-J-G is a member selected from the group consisting of:



8 and all pharmaceutically acceptable isomers, salts, hydrates, solvates and prodrug derivatives  
9 thereof.

1 13. (Currently amended) A pharmaceutical composition for preventing or  
2 treating a condition in a mammal characterized by undesired thrombosis comprising a  
3 pharmaceutically acceptable carrier and a therapeutically effective amount of a compound as in  
4 one of claims ~~1-12~~ 5-12.

1 14. (Currently amended) A method for preventing or treating a condition in a  
2 mammal characterized by undesired thrombosis comprising administering to said mammal a  
3 therapeutically effective amount of a compound as in one of claims ~~1-12~~ 5-12.

1 15. (Original) The method of claim 14, wherein the condition is selected from  
2 the group consisting of:

3 acute coronary syndrome, myocardial infarction, unstable angina, refractory angina,  
4 occlusive coronary thrombus occurring post-thrombolytic therapy or post-coronary angioplasty,  
5 a thrombotically mediated cerebrovascular syndrome, embolic stroke, thrombotic stroke,  
6 transient ischemic attacks, venous thrombosis, deep venous thrombosis, pulmonary embolus,

7 coagulopathy, disseminated intravascular coagulation, thrombotic thrombocytopenic purpura,  
8 thromboangiitis obliterans, thrombotic disease associated with heparin-induced  
9 thrombocytopenia, thrombotic complications associated with extracorporeal circulation,  
10 thrombotic complications associated with instrumentation such as cardiac or other intravascular  
11 catheterization, intra-aortic balloon pump, coronary stent or cardiac valve, and conditions  
12 requiring the fitting of prosthetic devices.

1                   16. (Currently amended) A method for inhibiting the coagulation of  
2 biological samples comprising the administration of a compound as in one of claims **1-12 5-12**.